REMARKS

Claims 1, 7, 13, 14, 25, 28, 34, and 37 have been amended. Claims 2, 8, 19-20 and 29 have been previously canceled. Claims 1, 3-7, 9-18, 21-28, and 30-38 remain pending in this application, with claims 1, 7, 13, and 28 being the only independent claims. Claims 1, 3-7, 9-18, 21-28, and 30-38 have been rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,697,695 (Kurihara), in view of U.S. Patent Application Publication No. 2005/0164684 (Chen), and further in view of U.S. Patent No. 5,224,047 (Kitagawa).

Rejection of claims 1, 3-7, 9-18, 21-28, and 30-38 under 35 U.S.C. §103

The Examiner again asserts that Kurihara discloses all of the features recited in Applicants' independent claim 1 except "the at least one data receiving unit being configured for wirelessly receiving and indicating the fault signals", which the Examiner asserts Chen teaches, and "the at least one data receiving unit comprising a lamp", which the Examiner asserts Kitagawa teaches.

Independent claim 1 has been amended to recite a fault message system that includes "a process computer configured for receiving the fault messages from the fault alarm box", and "at least one stationary data receiving unit configured for transmitting the fault signals to the fault alarm box, the at least one stationary data receiving unit comprising a lamp, the at least one stationary data receiving unit configured for wirelessly receiving the fault signals from the plurality of spatially distributed production units and indicating the fault signals, the lamp being configured for visually displaying the fault signals", which Kurihara, Chen, and Kitagawa, whether taken alone or in combination, fail to teach or suggest.

Support for the claim amendment can be found in Fig. 1, and paragraphs [0024]-[0026] of the published version of the present specification (US 2006/0271821). Applicant's claim 1

now clearly recites the specific signal path of the fault signals, which Kurihara, Chen, and Kitagawa fail to teach or suggest.

Applicant's amended claim 1 now recites that a production unit from a particular group of production units generates a fault signal and transmits the fault signal to a particular data receiving unit. The fault signal is transmitted from the particular data receiving unit to a fault alarm box and is simultaneously visually displayed by the lamp on the data receiving unit. The fault alarm box thereafter transmits a fault message based on the fault signal to a process computer. The fault alarm box also or alternatively transmits a fault message to a remote device (see Fig. 1 and paragraph [0024] of Applicant's published specification).

Applicant's recited data receiving units are particularly important in the process of transmitting fault signals. Specifically, the production units are spatially distributed and integrated in production lines. Because of this arrangement of the production units, it is difficult for a single person to observe all the production units in the production lines. If a fault occurs in one production unit, the production unit will send a fault signal to the associated data receiving unit. The data receiving unit transmits the fault signal to the fault box and displays the fault signal via a lamp on the associated data receiving unit. Thus, the service person is able to easily and rapidly identify the faulty production unit because the particular data receiving unit visually indicates which group of production units contains the production unit with the fault, and the activated lamp on the data receiving unit indicates which particular production unit in the group of production units produced the fault signal.

Kurihara discloses a laser device management system, which includes a laser control apparatus 10, which controls a laser device 2 and monitors a state of the laser device 2 (col. 8, lines 47-51 of Kurihara). The laser control apparatus 10 and laser device 2 of Kurihara are part

of a semiconductor fabrication apparatus 60. A monitor terminal 20 receives data indicating the state of the laser device 2 and transmits the data to a server device 30 which processes the data and outputs the data to a display terminal 40 (col. 8, lines 51-56). Kurihara further discloses that two semiconductor fabrication apparatus 60 may be connected to one monitor and that a plurality of semiconductor fabrication units 311 can be in one factory (see Figs. 11 and 22 of Kurihara).

In another embodiment, Kurihara discloses a monitor and display terminal 90 which replaces monitor terminal 20 and display terminal 40 (col. 19, lines 29-35 of Kurihara). In this embodiment, the monitor and display terminal 90 is connected to the server 30 by the network 50 (see Figs. 13-14 of Kurihara).

The Examiner cites the fabrication apparatus 60 of Kurihara as corresponding to Applicant's recited production units, the monitor and display terminal 90 of Kurihara as corresponding to Applicant's recited process computer, the display 40 of Kurihara as corresponding to Applicant's recited data receiving unit, and the server 30 of Kurihara as corresponding to Applicant's recited fault alarm box. However, Kurihara teaches that the monitor and display terminal 90 replaces the display 40 and the monitor 20. Thus Kurihara teaches away from using both the monitor and display terminal 90 with the display 40, as proposed by the Examiner

However, even the Examiner's proposed combination fails to disclose the recited limitations of independent claim 1. Clearly, the transmission path of the fault signal in Applicant's recited invention is significantly different from the transmission path of the fault message in the system of Kurihara. In particular, the display 40 of Kurihara only receives the fault message. The display 40 of Kurihara does not transmit the fault message to any other device or component. In contrast to Kurihara, Applicant's amended claim 1 expressly recites that that data receiving unit

both receives fault signals and transmits fault signals to a fault alarm box, which in turn transmits the fault signals to a process computer.

Furthermore, the present invention discloses that the fault messages are generated in the fault alarm box based on the fault signal received from the data receiving unit 4 (see paragraph [0024] of the published specification). Kurihara fails to distinguish between a fault signal and a fault message.

Thus, Kurihara, fails to teach or suggest "a process computer configured for receiving the fault message from the fault alarm box", and "at least one stationary data receiving unit configured for transmitting the fault signals to the fault alarm box, the at least one stationary data receiving unit comprising a lamp, the at least one stationary data receiving unit configured for wirelessly receiving the fault signals from the plurality of spatially distributed production units and indicating the fault signals, the lamp being configured for visually displaying the fault signals", as recited in Applicant's amended claim 1.

Chen was cited to show "the at least one data receiving unit being configured for wirelessly receiving and indicating the fault signals", and Kitagawa was cited to show "the at least one data receiving unit comprising a lamp". However, neither Chen nor Kitagawa teach or suggest Applicant's fault signal transmission path as now recited in amended claim 1.

Therefore, Kurihara, Chen, and Kitagawa, whether taken alone or in combination, fail to teach or suggest all the limitations recited in Applicant's amended claim 1. Accordingly, independent claim 1 is patentable over Kurihara, Chen, and Kitagawa under 35 U.S.C. §103(a).

Independent claims 7, 13, and 28 have been amended to recite limitations similar to independent claim 1, and are, therefore, deemed to be patentably distinct over Kurihara, Chen, and Kitagawa for at least those reasons discussed above with respect to independent claim 1.

Claims 3-6, 9-12, 14-18, 21-27, and 30-38, which depend from independent claims 1, 7, 13, and 28 incorporate all of the limitations of the corresponding independent claim and are therefore deemed to be patentably distinct over Kurihara, Chen, and Kitagawa for at least those reasons discussed above with respect to independent claims 1, 7, 13, and 28.

According to Applicant's invention as recited in amended claim 1, the at least one data receiving unit is a stationary unit (i.e., non-mobile), that includes a lamp that is visible from a distance on a factory floor.

Conclusion

In view of the foregoing, reconsideration, withdrawal of all rejections, and allowance of all pending claims is respectfully solicited.

Should the Examiner have any comments, questions, suggestions, or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
COHEN PONTANI LIEBERMAN & PAVANE LLP

By /Alfred W. Froebrich/
Alfred W. Froebrich
Reg. No. 38,887
551 Fifth Avenue, Suite 1210
New York, New York 10176
(212) 687-2770

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